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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,167	12/18/2001	Yoshikazu Tanaka	0229-0683P	9273

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EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 08/04/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-5

Office Action Summary

Application No.

10/020,167

Applicant(s)

TANAKA, YOSHIKAZU

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other: |

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- 1) Figure 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
- 2) Claim 1 is objected to because of the following informalities: "rage" should be --range--. Appropriate correction is required.
- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Suzuki et al

- 5) **Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Suzki et al (US 5400847).**

As to claim 1, the claimed tape is anticipated by the tape shown in figure 4 which is used in a tire. The illustrated total width of the two cords is about 35% of the tape width. In any event: As to claim 1, it would have been obvious to provide the cord reinforced tape of Suzki et al such that "a total width of said at least one cord in the

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width wise direction of the tape" is in a range of "from 1/100 to 1/2 times the width of the tape since Suzki et al suggests embedding at least one cord in a uncured rubber ribbon so that it can be wound to form a tire component (piece of belt). As to claims 4 and 5, Suzki et al teaches using the wound ribbon in a pneumatic tire.

6) **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzki et al (US 5400847) in view of Bormann et al (US 4869307).**

As to claim 2, it would have been obvious to provide Suzki et al's cord reinforced ribbon with the claimed cord diameter, tape width and tape thickness since Bormann et al, which also discloses a cord reinforced tape, suggests providing such a tape with a width of 10-40 mm and a thickness of .4-1.2 mm. The suggestion to use 1-3 cords (for example two cords) is found in Suzki et al.

Chrobak

7) **Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chrobak (US 3607497).**

Chrobak discloses a strip / ribbon (tape) of uncured rubber comprising at least one cord. In figure 3, the uncured rubber strip comprises three cords. Each of three cords is illustrated as being partially embedded in the rubber. A total illustrated width of the three cords is about 9% of the width of the tape.

As to claim 1, the claimed tape is anticipated by the strip disclosed by Chrobak. The claimed tape, for example, reads on the ribbon shown in figure 3. In any event: As to claim 1, it would have been obvious to provide the cord reinforced ribbon (tape) of Chrobak such that "a total width of said at least one cord in the width wise direction of

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the tape" is in a range of "from 1/100 to ½ times the width of the tape since (a) Chrobak teaches using at least one cord such as three cords to form a reinforced uncured rubber ribbon and winding the cord reinforced ribbon in order to form a tread portion (tread or undertread) having improved mechanical strength and stability.

As to claims 4 and 5, Chrobak teaches that the ribbon is used to form the tread (a tire component) of a pneumatic tire.

8) Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chrobak (US 3607497) in view of Midorikawa et al (US 5591279).

As to claim 3, it would have been obvious to one of ordinary skill in the art to incorporate short fibers in the uncured rubber ribbon of Chrobak such that the fibers are oriented in the longitudinal direction of the ribbon (tape) since (a) Chrobak teaches reinforcing the uncured rubber (with at least one longitudinally extending cord) and using the reinforced rubber ribbon to form a tread portion and (b) Midorikawa et al suggests reinforcing a tread portion by incorporating circumferentially oriented short fibers in a tread portion so that block edge effect and rubber adhesive effect can be simultaneously achieved to the maximum extent.

9) Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chrobak (US 3607497) in view of Iida et al (US 6412532) and optionally Bormann et al (US 4869307) or Suzuki et al (US 5400847).

Chrobak does not recite the specific cord diameter, tape width and tape thickness as set forth in claim 2. As to claims 1 and 2, it would have been obvious to provide the cord reinforced ribbon (tape) of Chrobak such that "a total width of said at

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least one cord in the width wise direction of the tape" is in a range of "from 1/100 to $\frac{1}{2}$ times the width of the tape (claim 1) / the cord diameter is 0.3-1.5 mm, the tape width is 10-30 mm and the tape thickness other than at the cord position is 0.5-1.5 mm (claim 2) since (a) Chrobak teaches using at least one cord such as three cords to form a reinforced uncured rubber ribbon and winding the cord reinforced ribbon in order to form a tread portion (tread or undertread) having improved mechanical strength and stability and (b) lida et al suggests forming a tread portion by strip winding wherein the strip has a width of 5-30 mm and a thickness of .5-3 mm and optionally (c) cords having a diameter within the range of 0.3 -1.5 mm are taken as well known / conventional reinforcing cords for a tire component in the tire art. The limitation of the cord being "embedded" along the length of the tape would have been obvious in view of (a) Chrobak's teaching to form a cord reinforced strip and optionally (b) Bormann et al or Suzuki et al's suggestion to completely embed cords in a uncured rubber strip to be wound to form a tire component.

As to claims 4 and 5, Chrobak teaches that the ribbon is used to form the tread (a tire component) of a pneumatic tire.

10) **Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chrobak (US 3607497) in view of lida et al (US 6412532) and optionally Bormann et al (US 4869307) or Suzuki et al (US 5400847) as applied above and further in view of Midorikawa et al (US 5591279).**

As to claim 3, it would have been obvious to one of ordinary skill in the art to incorporate short fibers in the uncured rubber ribbon of Chrobak such that the fibers are

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oriented in the longitudinal direction of the ribbon (tape) since (a) Chrobak teaches reinforcing the uncured rubber (with at least one longitudinally extending cord) and using the reinforced rubber ribbon to form a tread portion and (b) Midorikawa et al suggests reinforcing a tread portion by incorporating circumferentially oriented short fibers in a tread portion so that block edge effect and rubber adhesive effect can be simultaneously achieved to the maximum extent.

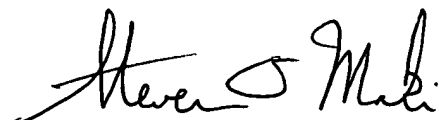
Remarks

- 11) No claim is allowed.
- 12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
July 28, 2003


STEVEN D. MAKI
PRIMARY EXAMINER
~~GROUP 1300~~
Av 1733 7-28-03